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Department of Energy

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OCT 21 3 10 PM '92 Rocky Flats Office



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EG&G
ROCKY FLATS PLANT
CORRESPONDENCE UNIT

OCT 20 1992

ERD:PMP:11362

Section D Categorical Exclusion (RFO/CX025-91) Determination

C. M. Borgstrom, Director Office of NEPA Oversight, EH-25, HQ

A copy of RFO/CX025-91, Field Activities for Geological and Ecological Characterization Within Floodplains or Wetlands, is attached for your review. This categorical exclusion (CX) was originally submitted for approval to the Office of Environmental Restoration and Waste Management in October of 1991. We have been awaiting the approval and publication of the Floodplain/Wetlands Notice of Involvement and Statement of Findings required by regulations at 10 CFR 1022 since that time. Both of those documents have now been published in the *Federal Register*, and the Wetlands Assessment has been delegated from EM to the field in this interim time, we are now resubmitting the CX which has been approved by the Rocky Flats Office Manager.

Robert M. Nelson, Jr.
Robert M. Nelson, Jr.
Manager

Attachment

cc w/Attachment:
R. S. Scott, EM-20
A. Rampertaap, EM-453
S. Nesta, EG&G
W. A. Moore, EG&G

DUE DATE	
ACTION	
DIST	LTR ENC
BENJAMIN, A.	
BERMAN, H.S.	
CARNIVAL, G.J.	
COPP, R.D.	
CORDOVA, R.C.	
DAVIS, J.G.	
FERRERA, D.W.	
HANNI, B.J.	
HEALY, T.J.	
HILBIG, J.G.	
IDEKER, E.H.	
KERSH, J.M.	<input checked="" type="checkbox"/>
KIRBY, W.A.	<input checked="" type="checkbox"/>
KUESTER, A.W.	
LEE, E.M.	
MANN, H.P.	
MARX, G.E.	
MCKENNA, F.G.	
MONTROSE, J.K.	
MORGAN, R.V.	
PIZZUTO, V.M.	
POTTER, G.L.	
RILEY, J.H.	
SANDLIN, N.B.	
SATTERWHITE, D.G.	
SCHUBERT, A.L.	
SHEPLER, R.L.	
SULLIVAN, M.T.	
SWANSON, E.R.	
WHITE, B.L.	
WILKINSON, R.B.	
WILSON, J.M.	
ZANE, J.O.	
Nesta, S.	<input checked="" type="checkbox"/>
Moore, W.A.	<input checked="" type="checkbox"/>
Benedetti, J.	<input checked="" type="checkbox"/>
Setlock, G.	<input checked="" type="checkbox"/>

CORRES CONTROL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TRAFFIC		

Reviewed for Addressee
Corres. Control RFP

10-21-92 *Ci*
DATE BY

Ref Ltr. #

1/17

SECTION D DETERMINATION
CATEGORICAL EXCLUSION (CX) DETERMINATION RFO/CX025-91

Proposed Action: Field Activities for Geologic and Ecological Characterization Within Floodplains or Wetlands

Location: Rocky Flats Plant, Golden, CO

Proposed by: U.S. Department of Energy, Rocky Flats Office

Description of the Proposed Action:

Rocky Flats Plant proposes to carry out field activities to gather data to characterize the geology and ecology of the plant site within wetlands and floodplains in support of the remediation of RCRA and CERCLA sites. This work may be performed both within and outside the boundaries of operable units 1, 2, 5 and 6. The characterization work would include 1) establishing new surface water and sediment sampling stations and collecting samples, 2) collecting soil and soil gas samples, and 3) drilling new water wells and collecting groundwater samples, and 4) drilling to obtain geologic cores.

To establish new surface water and sediment sampling stations, stakes would be driven into the ground at the edge of a stream or water body. The stakes would be used as reference points so that samples can be taken from the same locations periodically. Water and sediment samples would be taken by driving or walking to the sample site and collecting up to a few pounds of sediment or a few quarts of water.

Soil and soil gas samples may be collected within floodplains from grids 38, 51, 52, 57, 81, 96, 109 and 115 shown on Figure 2 using three different methods. The first soil sampling method uses a Colorado Department of Health sampler to remove two to three tablespoons of soil from the ground surface anywhere within the grid. The second soil sampling method that would be used is backhoe excavation of soil pits nine feet long, five feet wide and four feet deep to gather samples from the soil profile within each grid. The sample pits will be refilled with the excavated earth after sampling. Sampling soil gas (Figures 3 and 8) is to be accomplished by using a hand auger to drill a one inch diameter hole 18 to 24 inches deep. A probe is inserted into the hole to sample any gases that escape from the soil.

Drilling new water wells and core holes would involve driving a truck mounted drilling rig to the locations shown on Figures 1, 3, 6, 7, 8, 9, 10, 11, 13 and 14 to drill holes four to six inches in diameter. Drilling activities that may be within the 100 year floodplain or wetlands are highlighted by heavy arrows on the figures. As a general principle, drilling in wetlands would be avoided because of the added difficulties of setting up a drill rig and drilling in saturated soils, but it may be necessary to locate one or more holes within a wetland. As holes are drilled, drill cuttings would be brought to the surface and shoveled into drums for analysis of contaminants and appropriate disposal. Drilling activity will result in the trampling of vegetation for up to 200 square feet around the drill hole.

These activities would not introduce or cause the inadvertent or uncontrolled movement of hazardous substances or non-native organisms, or adversely affect environmentally sensitive areas listed in the guidelines. Because of the nature of the proposed activities, no adverse impacts are expected to wetlands or floodplains.

Categorical Exclusion to be applied:

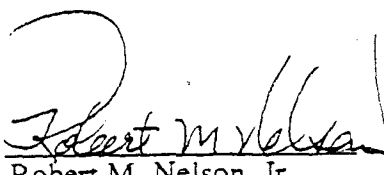
B3.1 Site characterization and environmental monitoring, including siting, construction, operation, and dismantlement or closing (abandonment) of characterization and monitoring devices and siting.

construction, and operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis. Activities covered include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. Specific activities include, but are not limited to: (a) Geological, geophysical (such as gravity, magnetic, electrical, seismic, and radar), geochemical, and engineering surveys and mapping, including the establishment of survey marks; (b) Installation and operation of field instruments, such as streamgauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration tools; (c) Drilling of wells for sampling or monitoring of groundwater or the vadose (unsaturated) zone, well logging, and installation of water-level recording devices in wells; (d) Aquifer response testing; (e) Installation and operation of ambient air monitoring equipment; (f) Sampling and characterization of water, soil, rock, or contaminants; (g) Sampling and characterization of water effluents, air emissions, or solid waste streams; (h) Installation and operation of meteorological towers and associated activities, including assessment of potential wind energy resources; (i) Sampling of flora or fauna; and (j) Archeological, historic, and cultural resource identification in compliance with 36 CFR part 800 and 43 CFR part 7. (10 CFR 1021, Appendix B to Subpart D)

DOE NEPA REGULATIONS SECTION D
CATEGORICAL EXCLUSION DETERMINATION - RFO/CX025-91
Field Activities for Geologic and Ecological Characterization Within Floodplains or Wetlands

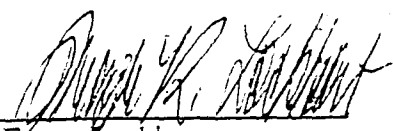
I have determined that the proposed action meets the requirements for a categorical exclusion as defined in the Section D of 10 CFR 1021. Therefore, I approve the categorical exclusion of the proposed action from further NEPA review and documentation.

Date: 10/20/92

Signature: 
Robert M. Nelson, Jr.
Title: Manager, Rocky Flats Office


Project Sponsor:

Date: 10/14/92

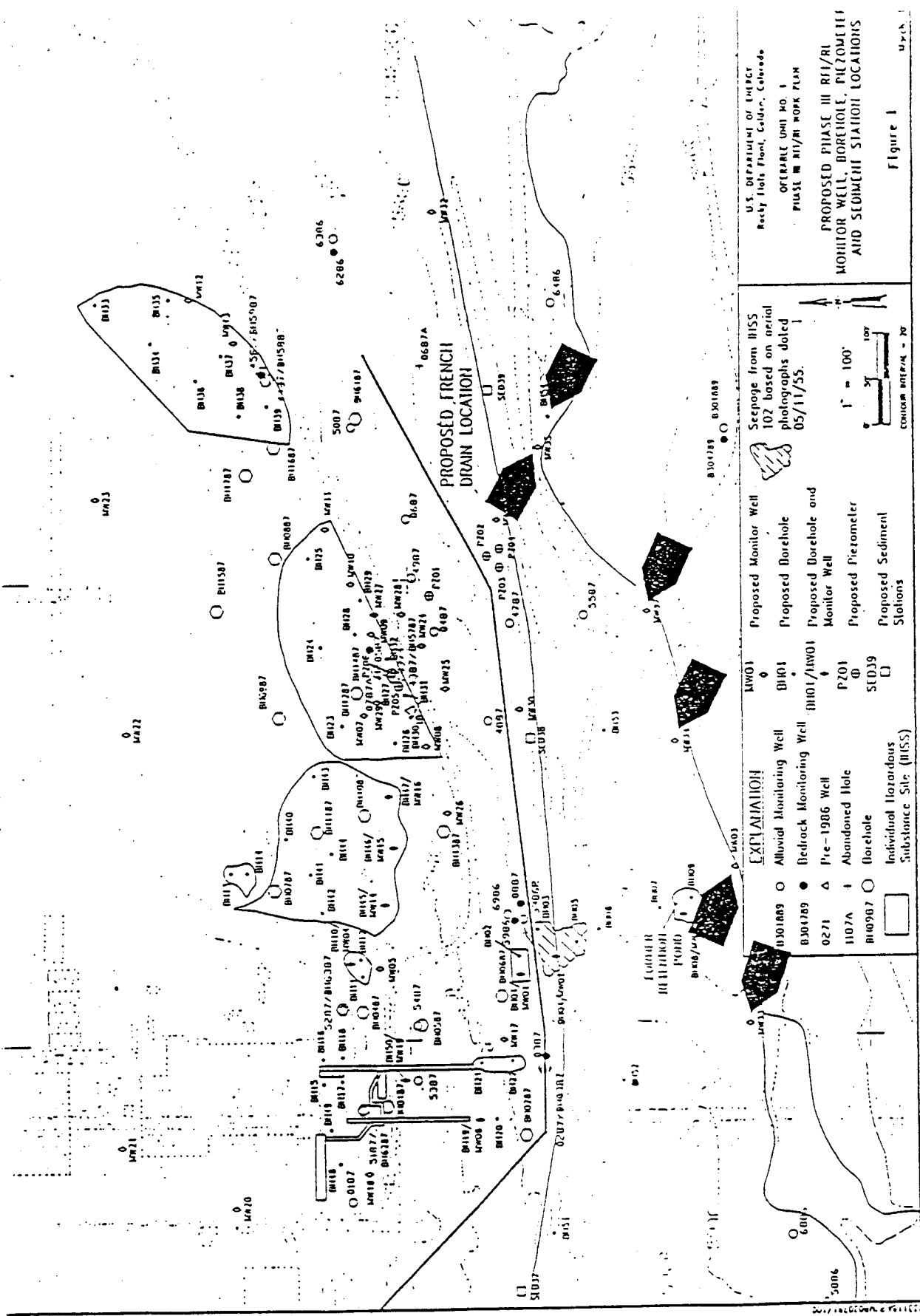
Signature: 
Frazer Lockhart
Title: Director, Environmental Restoration Division

I have reviewed this determination and find that a categorical exclusion is the appropriate level of NEPA documentation.

Date: October 6, 1992

Signature: 
Patricia M. Powell
Title: NEPA Compliance Officer

ADS number: 1001, 1002, 1005, 1016 (EM)



EXPLANATION



ESTIMATED WATER TABLE ELEVATION
BASED ON 25.5 CENTIMETER TWO
APPROXIMATE IN ONE FOOT

25

10 ACRE SURVEY PLOT LOCATED

25

10 ACRE SURVEY PLOT LOCATED
NORTH AND SOUTH OF OUTLINE UNIT 2

25

10 ACRE SURVEY PLOT LOCATED



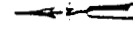
WELL TYPE ROCKET AND NUMBER

SOURCE: U.S. DEPARTMENT OF AGRICULTURE, 1960

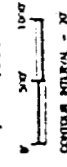
SURVEY NUMBER

SURVEY

27	DEMER
28	DEMER SOUTH
29	DEMER NORTH
30	DEMER WEST
31	DEMER EAST
32	DEMER
33	DEMER
34	DEMER
35	DEMER
36	DEMER
37	DEMER
38	DEMER
39	DEMER
40	DEMER
41	DEMER
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197	DEMER
198	DEMER
199	DEMER
200	DEMER



1" = 1000'

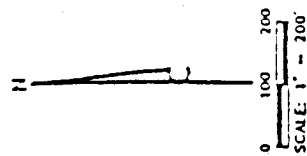


U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

OPERATION UNIT NO. 2
PHASE B RTI/BI WORK PLAN (JULY 1961)

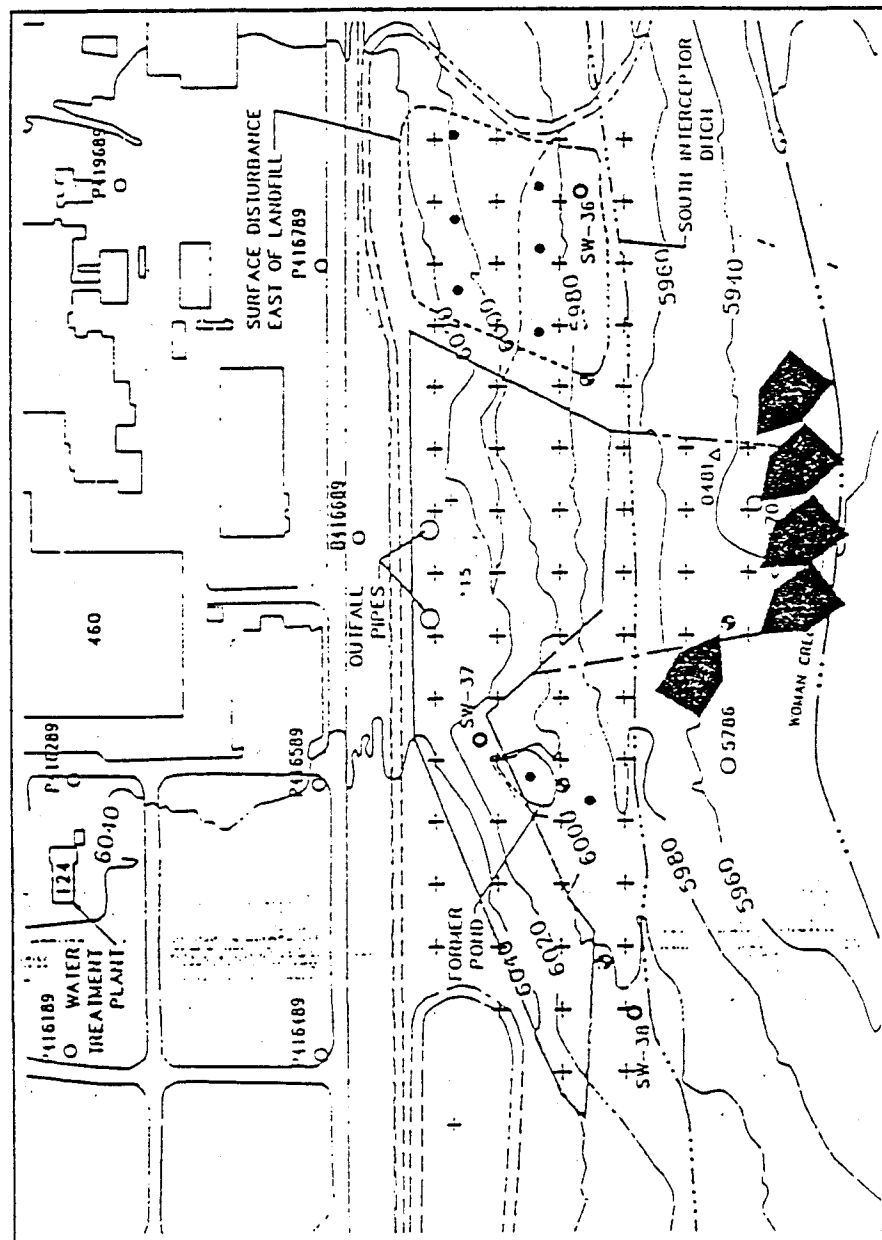
PROPOSED SURFICIAL SOIL SAMPLING
PLOT IDENTIFICATION NUMBERS

Figure 2



EXPLANATION

- INDIVIDUAL HAZARDOUS SUBSTANCE SITE
- EXISTING SURFACE WATER SAMPLING LOCATION
- EXISTING ALLUVAL GRADWATER MONITORING WELL
- PRE-1986 MONITORING WELL
- INTERMITTENT STREAM
- DIRT ROAD
- ROCKY FLATS BLDG NO. [124]
- PRELIMINARY EXTENSION OF THE LANDFILL BASED ON A SITE RECONNAISSANCE
- PROPOSED WELL LOCATION
- PROPOSED SOIL BORING LOCATION
- PROPOSED SOIL GAS SAMPLES
- *ALL PROPOSED LOCATIONS ARE APPROXIMATE



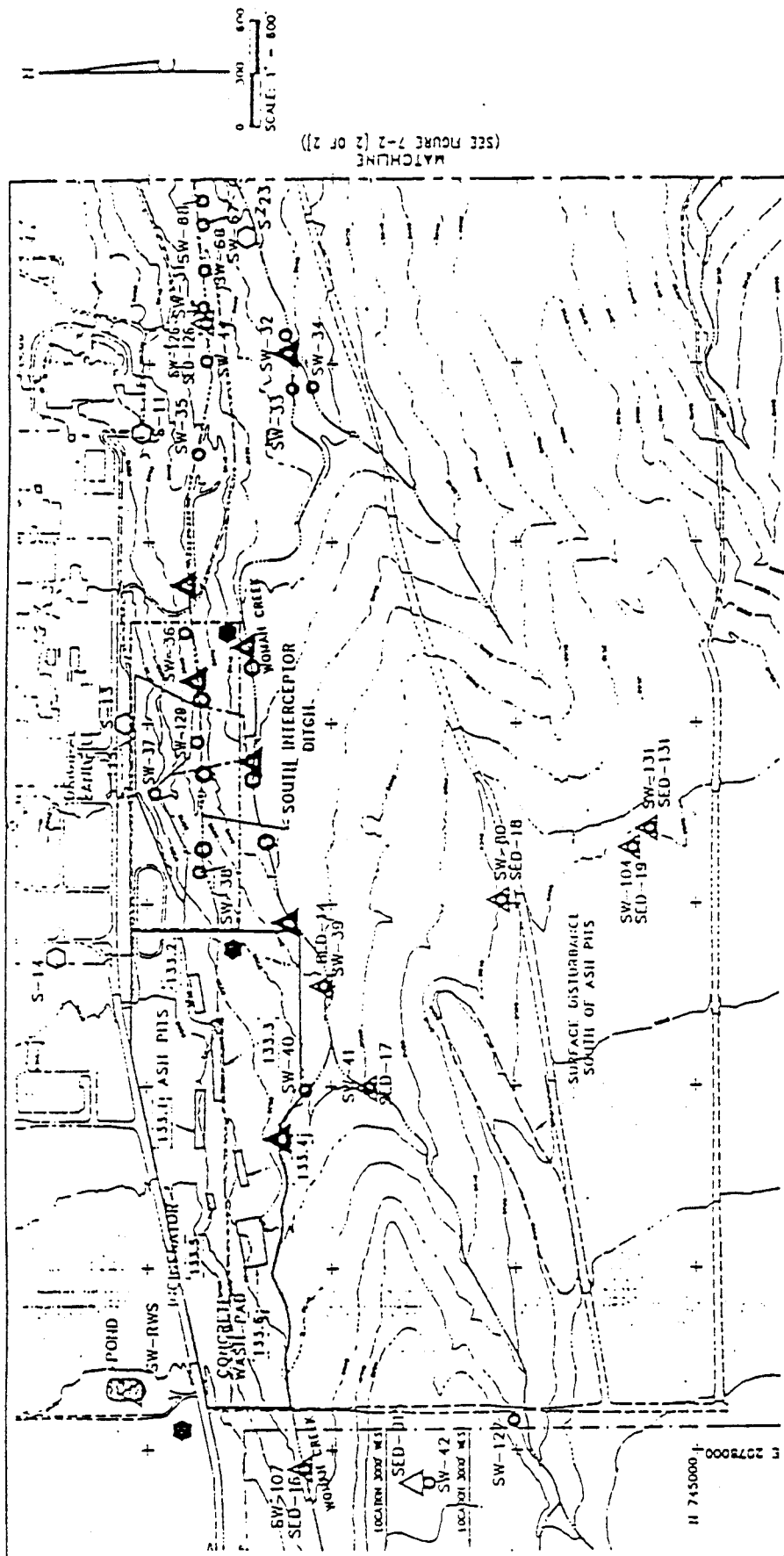
U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

OPERABLE UNIT 3
PHASE 1 RI/RI WORK PLAN

PROPOSED SAMPLING AND
WELL LOCATIONS
HSS 115
ORIGINAL LANDFILL

Figure 3

REV. AUGUST 1991
MARCH 1991



(SEE FIGURE 7-2 (2 OF 2))

EXPLANATION

- INDIVIDUAL HAZARDOUS SUBSTANCE SITE
- EXISTING SURFACE WATER LOCATIONS
- EXISTING SEDIMENT SAMPLING LOCATIONS
- INTERMITTENT STREAM
- DIRT ROAD
- PRELIMINARY EXTENSION OF THE SURFACE DISTURBANCE BASED ON A RECONNAISSANCE
- EXISTING RADIOACTIVE AMBIENT AIR MONITORING PROGRAM LOCATIONS
- PROPOSED SEDIMENT SAMPLE LOCATION
- PROPOSED RADIOACTIVE AMBIENT AIR MONITORING PROGRAM LOCATION
- PROPOSED SURFACE WATER LOCATION
- PROPOSED GERMANY SURVEY FOR ASH PIT AREA
- 1990 GERMANY SURVEY BOUNDARY AROUND OLD LAUNCH

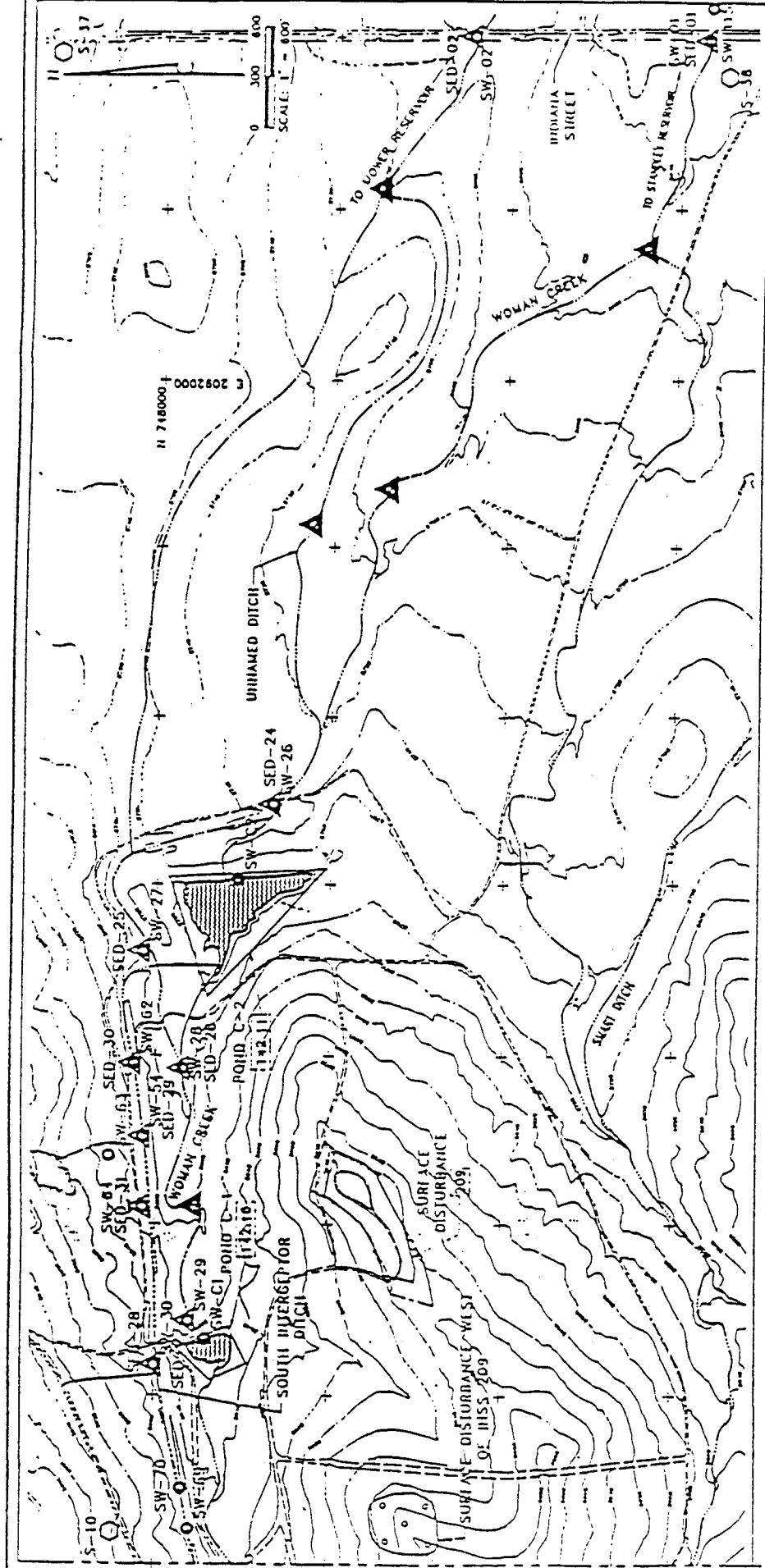
U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

OPERABLE UNIT 5
PHASE 1 RI/RI WORK PLAN

SEDIMENT & SURFACE WATER
SAMPLING SITES & AIR MONITORING
STATIONS ALONG WOMAN CREEK AND
THE SOUTH INTERCEPTOR DITCH

Figure 4

REV. AUGUST 1991
MARCH 1991



U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

OPERABLE UNIT 3
PHASE 1 RI/RI WORK PLAN

SEDIMENT & SURFACE WATER
SAMPLING SITES & AIR MONITORING
STATIONS ALONG WOMAN CREEK AND
THE SOUTH INTERCEPTOR DITCH

Figure 5

REV. AUGUST 1981
MARCH 1981

MATCHLINE
(SEE FIGURE 7-2 (1 OF 2))

EXPLANATION

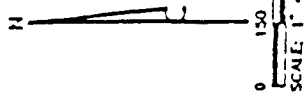
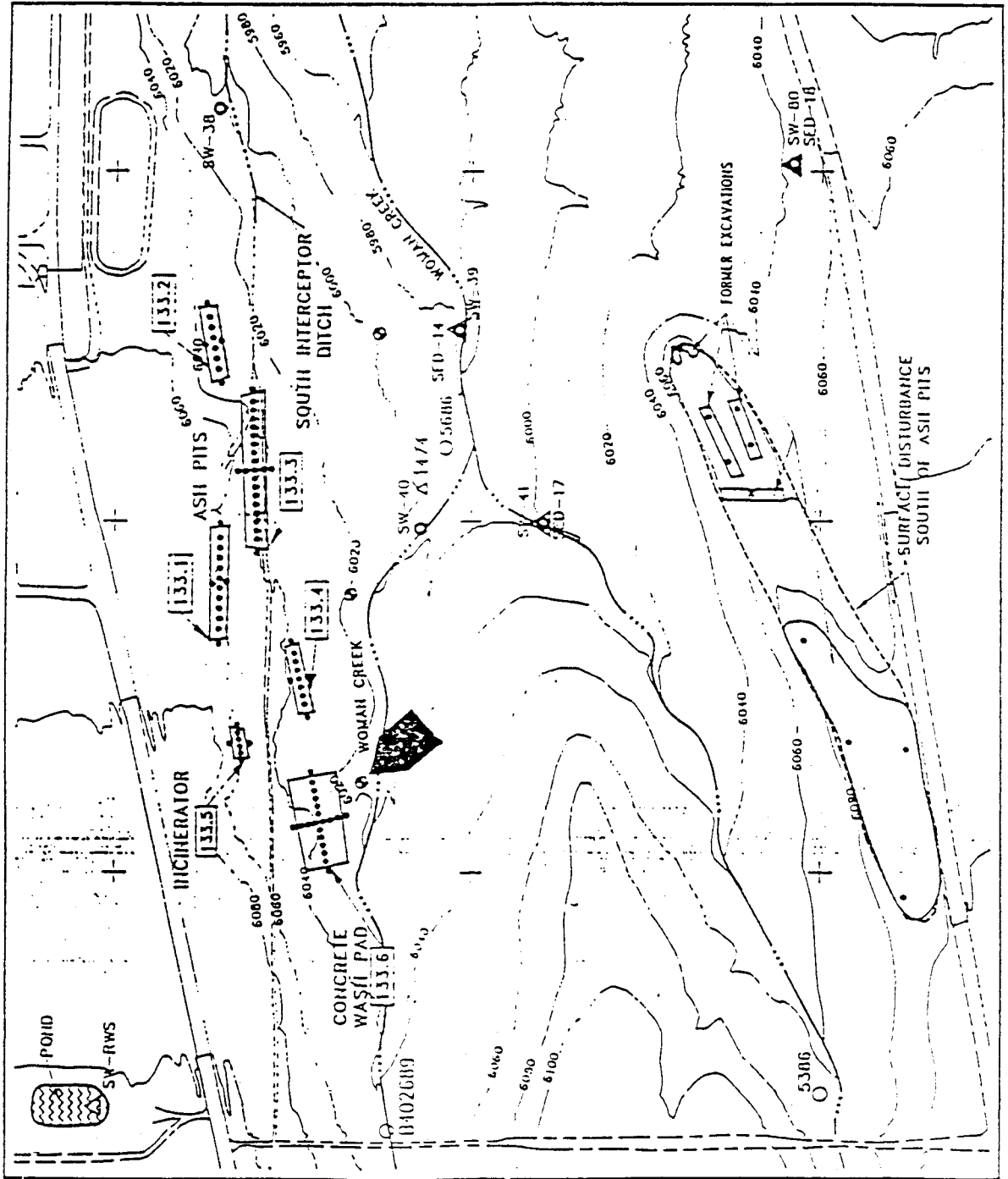
(113)	INDIVIDUAL HAZARDOUS SUBSTANCE SITE	S-23
SW-10	EXISTING SURFACE WATER LOCATION	
SED-1	EXISTING SEDIMENT SAMPLING LOCATION	
---	INTERMITTENT STREAM	
---	DIRT ROAD	
---	PRELIMINARY EXHUSION OF THE SURFACE	
---	DISTURBANCE BASED ON A RECONNAISSANCE	
---	ORIGINAL STREAM CHANNEL HEAT	
---	POUD C-2	

EXISTING RADIOACTIVE AIR
MONITORING PROGRAM LOCATION

PROPOSED SEDIMENT
SAMPLE LOCATION

SEDIMENT & SURFACE WATER
SAMPLING SITES & AIR MONITORING
STATIONS ALONG WOMAN CREEK AND
THE SOUTH INTERCEPTOR DITCH

8/17



EXPLANATION

[115]

- INDIVIDUAL HAZARDOUS SUBSTANCE PIT
- EXISTING SURFACE WATER SAMPLING LOCATION
- EXISTING ALLIANT CROCODON WATER MONITORING WELL
- EXISTING SEDIMENT SAMPLING LOCATION
- PRE-1986 MONITORING WELL
- PROPOSED SOIL BORING LOCATION
- PROPOSED WELL LOCATION
- PROPOSED SURFACE SAMPLING LOCATION

----- INTERMITTENT STREAM

===== DIRT ROAD

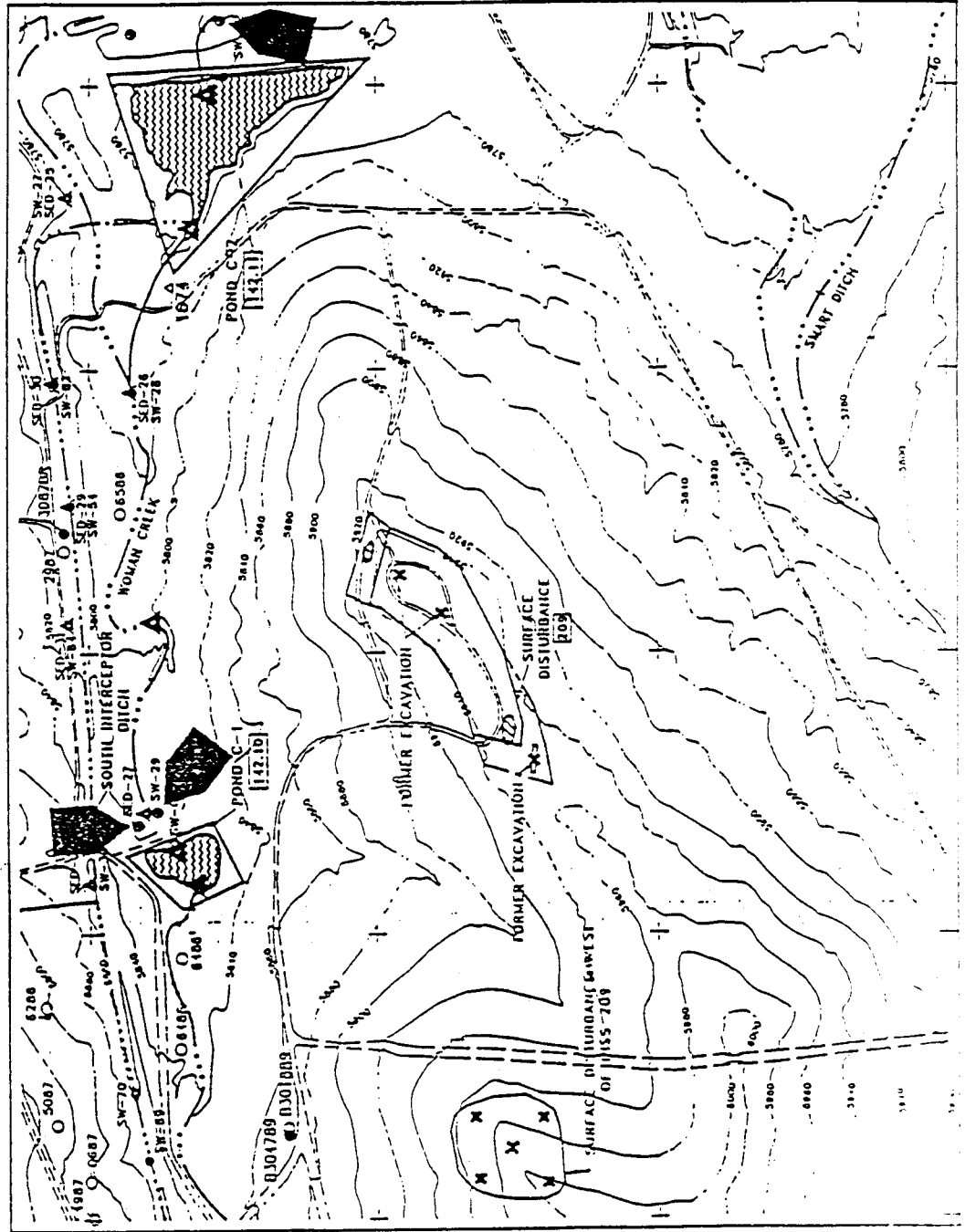
*ALL PROPOSED LOCATIONS ARE APPROXIMATE

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

OPERABLE UNIT 5
PHASE 1 RI/RI WORK PLAN

PROPOSED SAMPLING & WELL LOCATIONS,
ASH PITS 1-4, INCINERATOR,
CONCRETE WASH PAD (HSS 133.1-6),
AND ADDITIONAL SURFACE DISTURBANCE

9/17



EXPLANATION

- 113 INDIVIDUAL HAZARDOUS SUBSTANCE SITE
- SW-10 EXISTING SURFACE WATER SAMPLING LOCATION
- 3784 O EXISTING ALIQUOT ORGANOCHLORIDE MONITORING WELL
- SED-17 EXISTING STREAM SAMPLING LOCATION
- 3007 EXISTING BIERDORF ORGANOCHLORIDE MONITORING WELL
- PORECE DEPT. SOON
- INTERMITTENT STREAM
- DIRT ROAD
- PRELIMINARY EXTENSION OF THE SURFACE DISTURBANCE BASED ON A SE IN CORRELATION
- ORIGINAL STREAM CHANNEL NEAR POND C-1
- X PROPOSED SURFACE SAMPLING LOCATION
- O PROPOSED WELL LOCATION
- Δ PROPOSED STREAM SAMPLING LOCATION

3 OTHER LOCATIONS IN EACH POND WILL BE SELECTED AT RANDOM
 *ALL PROPOSED LOCATIONS ARE APPROXIMATE

U.S. DEPARTMENT OF ENERGY
 Rocky Flats Plant, Golden, Colorado
 OPERABLE UNIT 3
 PHASE 1 RI/RI WORK PLAN
 PROPOSED SAMPLING & WELL LOCATIONS
 HISS 142-10-11, PONDS C-1 & C-2,
 HISS 209 SURFACE DISTURBANCE, & THE
 SURFACE DISTURBANCE WEST OF
 HISS 209

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DISCUSSION ONLY

0 200 400
SCALE: 1" = 400'

EXPLANATION

- INDIVIDUAL HAZARDOUS SUBSTANCE SITE
- EXISTING SURFACE WATER SAMPLING LOCATION
- EXISTING ALLUVIAL GROUNDWATER MONITORING WELL
- EXISTING SEDIMENT SAMPLING LOCATION
- EXISTING BEDROCK GROUNDWATER MONITORING WELL
- EXISTING PRE-1986 WELL
- INTERMITTENT STREAM
- DIRT ROAD
- PROPOSED WELL LOCATION¹
- PROPOSED SEDIMENT SAMPLE LOCATION¹
- PROPOSED BEDROCK WELL LOCATIONS FOR SITE-MIX CERAMICAL CHARACTERIZATION PROGRAM¹; these wells are shown in Figure 11.

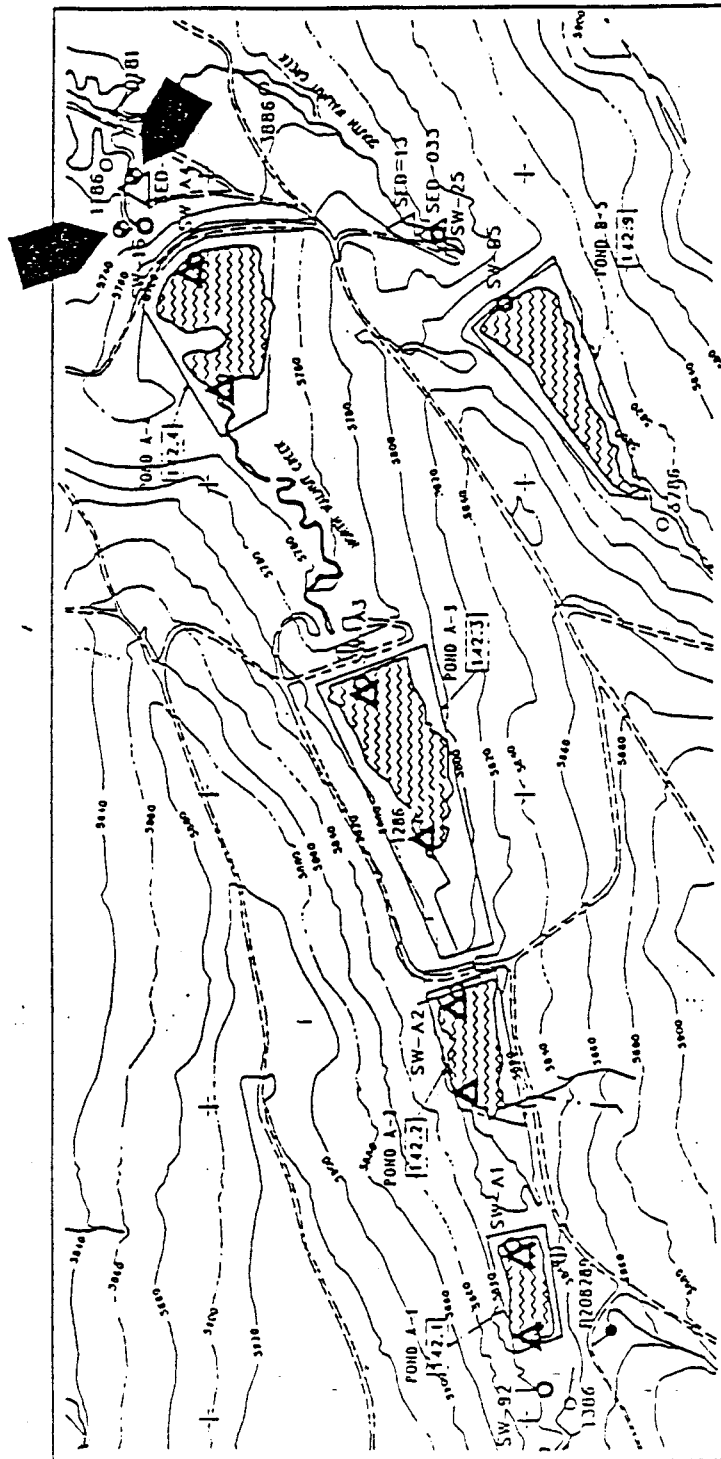
¹ALL PROPOSED LOCATIONS ARE APPROXIMATE

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

OPERABLE UNIT 6
PHASE 1 RI/RI WORK PLAN

PROPOSED SAMPLING & WELL LOCATIONS
HUSSES 142.1-4
A-SERIES DETENTION PONDS
ALONG NORTH WALIUT CREEK

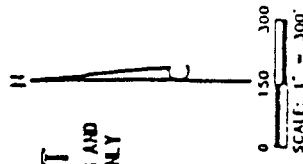
Figure 9 APRIL 1991



12/21

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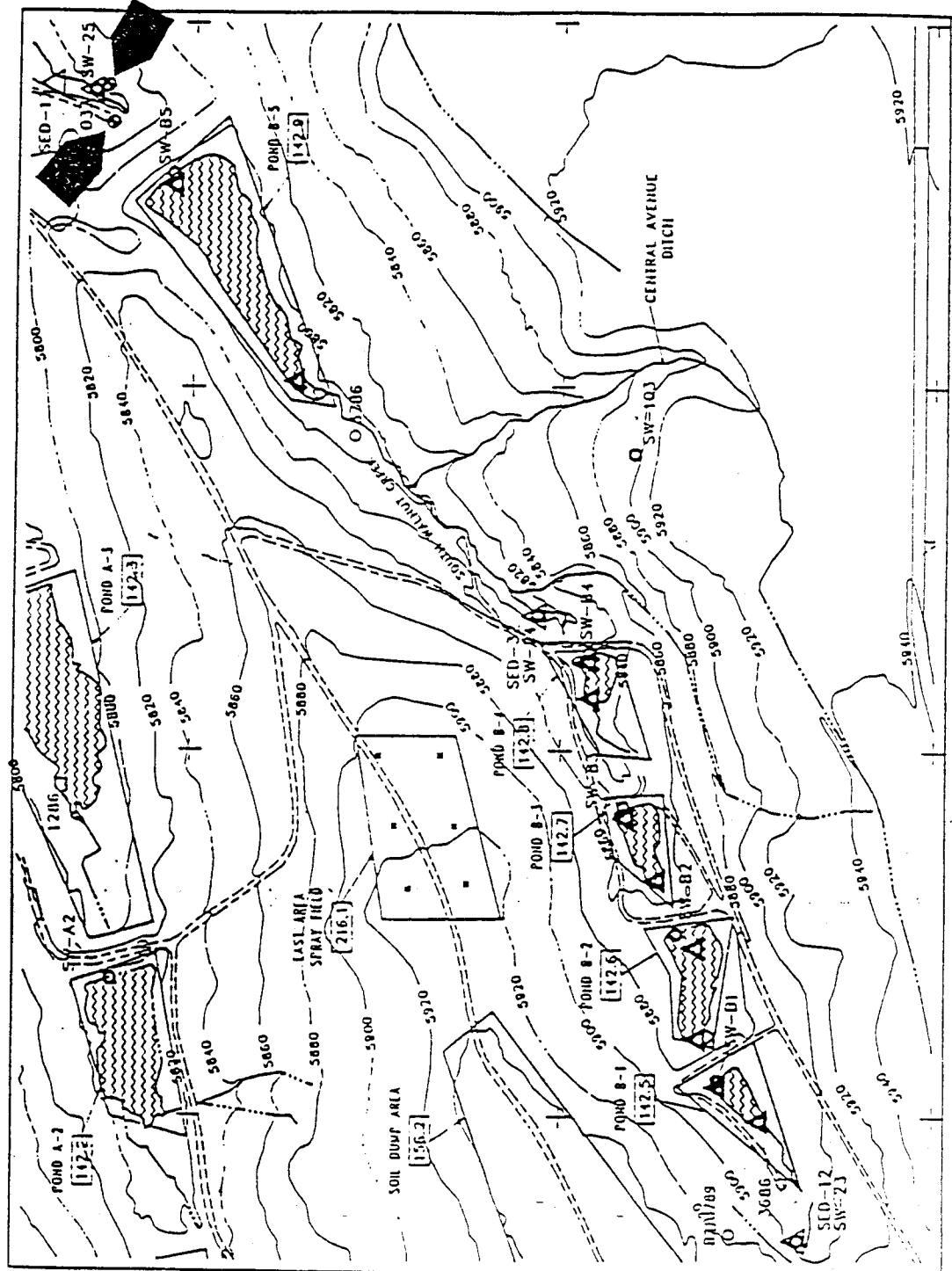
EXPLANATION

- [115] INDIVIDUAL HAZARDOUS SUBSTANCE SITE
 - SW-1 O EXISTING SURFACE WATER SAMPLING LOCATION
 - 5786 O EXISTING ATMOSPHERIC GROUNDWATER MONITORING WELL
 - SED-17 Δ EXISTING SEDIMENT SAMPLING LOCATION
 - INTERMITTENT STREAM
 - DIRT ROAD
 - [111] ROCKY FLATS BLDG. NO.
 - PROPOSED WELL LOCATION¹
 - PROPOSED BORING AND SURFACE SAMPLE¹ LOCATION
 - Δ PROPOSED SEDIMENT SAMPLE LOCATION^{1,2}
 - ⊕ PROPOSED BEDROCK WELL LOCATIONS FOR SITE-WIDE GEOLOGICAL CHARACTERIZATION PROGRAM¹
- ¹ ALL PROPOSED LOCATIONS ARE APPROXIMATE
² THREE OTHER LOCATIONS IN EACH POND WILL BE SELECTED AT RANDOM

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

OPERABLE UNIT 6
PHASE 1 REM/RI WORK PLAN

PROPOSED SAMPLING & WELL LOCATIONS
HSSs 142.5-9,
B-SERIES DETENTION PONDS
ALONG SOUTH WALNUT CREEK
HSS 216.1 EAST AREA SPRAY FIELD



EXPLANATION

INDIVIDUAL HAZARDOUS SUBSTANCE SITE
(HSS) IN OFFICIAL UNIT 6

MISS REFERENCE NUMBER

HOW DO I MEASURE MY OWN PROGRESS?

THE JURY IN THE 21ST CENTURY

PRIMEIR SECURTY 2018

DAI ROAD

1.3.1. SURVEYS IN BRIDGES FOR SMALL VOLUME OF SOURCE

PROPOSED BEDROCK WELL LOCATIONS FOR
SITE - MOF GEOLOGICAL CHARACTERIZATION
PROGRAM¹

1 ALL PROPOSED LOCATIONS ARE APPROXIMATE

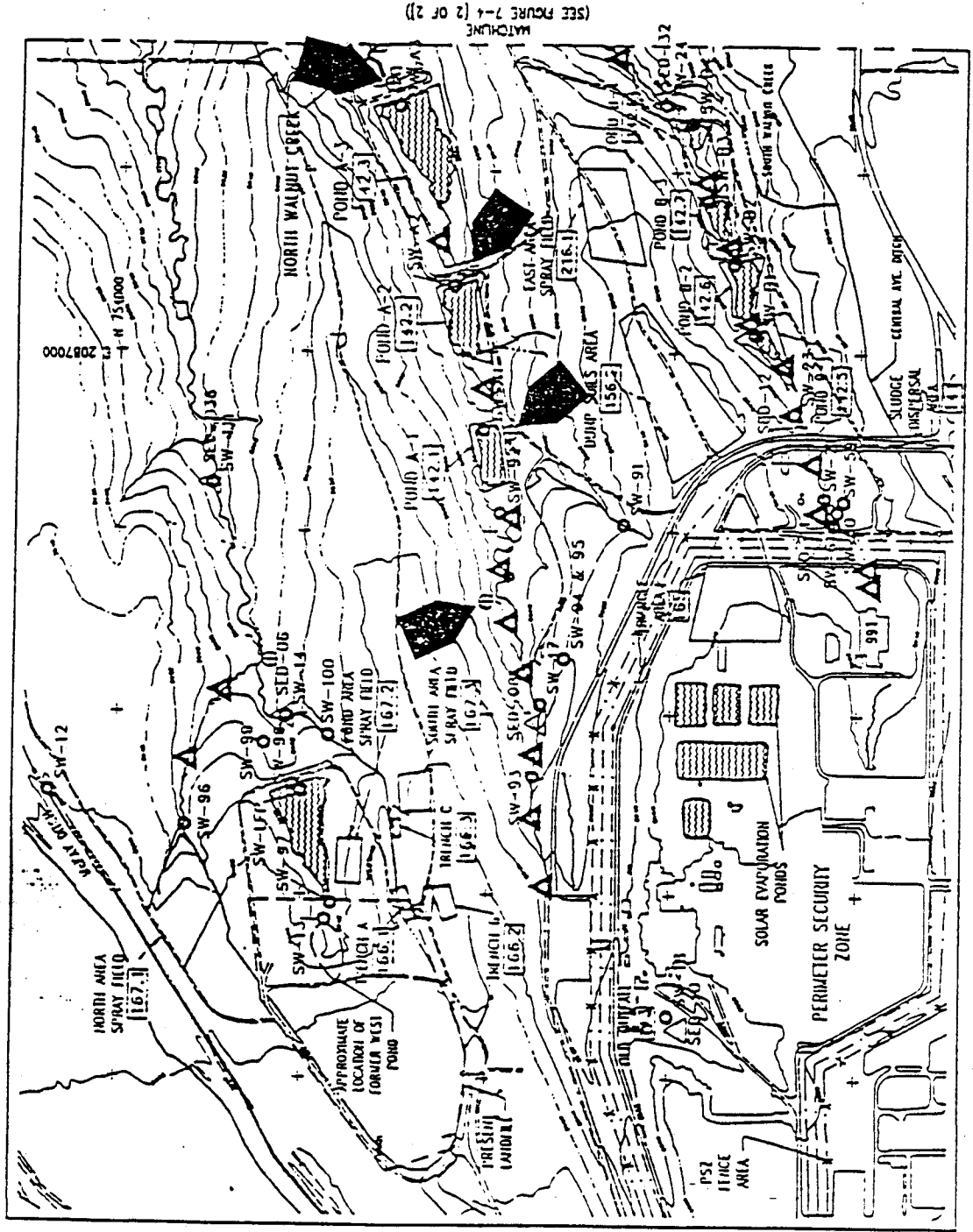
U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

OPERABLE UNIT 6
PHASE I RFI/RI WORK PLAN

SEDIMENT SAMPLING SITES AND
SITE--WIDE PROGRAM BEDROCK WELLS
ON NORTH AND SOUTH
WALNUT CREEKS

Figure 11

APRIL 1990



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DISCUSSION ONLY



0 300 600
SCALE: 1" = 600'

EXPLANATION



INDIVIDUAL HAZARDOUS SUBSTANCE SITE
(IHSS) IN OPERABLE UNIT 6

5153

ISS REFERENCE NUMBER

SW-1

EXISTING SURFACE WATER SAMPLING LOCATION

SW-17

EXISTING SEDIMENT SAMPLING LOCATION

SW-1

DRY ROAD

▲

PROPOSED LOCATIONS FOR SEDIMENT SAMPLING¹

¹ ALL PROPOSED LOCATIONS ARE APPROXIMATE

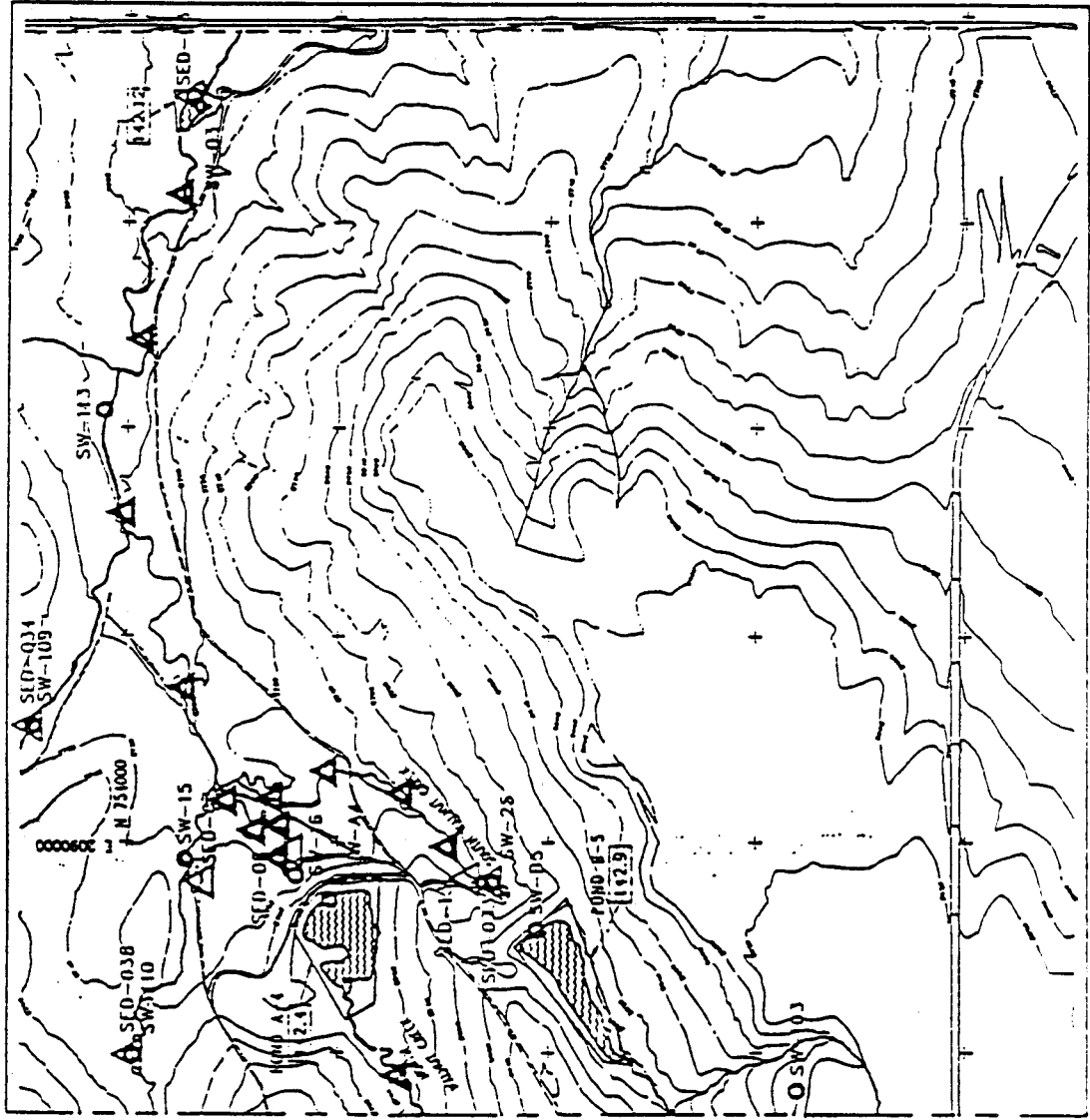
U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

OPERABLE UNIT 6
PHASE 1 RI/RI WORK PLAN

SEDIMENT SAMPLING SITES AND
SITE-WIDE PROGRAM BEDROCK WELLS
ON NORTH AND SOUTH
WALNUT CREEKS

Figure 12

APRIL 1991



MATCHLINE
(SEE FIGURE 7-4 (2 OF 2))

1517


$$17 \overline{) 17}$$